

REMARKS

Claims 1-6 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 112

Claims 1-3 stand rejected under 35 U.S.C. § 112, first paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

As part of the Amendment filed on July 31, 2007, Applicant amended independent Claim 1 to include the limitation "each of said plurality of support brackets extending inwardly toward but not contacting the other of said pair of longitudinally extending tubular members". However, the Examiner stated in the Final Office Action mailed on October 10, 2007 that he has been able "to find substantially no evidence to support a limitation which explicitly excludes the support brackets from contacting the other member of the pair of longitudinally extending tubular members." (Final Office Action, page 2).

Applicant submits that such evidence can be found in the originally filed application, including the originally filed drawings and inferentially in the written specification. Specifically, Applicant directs the Examiner's attention to Figure 1 which illustrates a plurality of support bracket members 20 mounted to at least one of the pair of longitudinally extending members 12. As described in the specification at Paragraph [0017]:

[t]he plurality of bracket members 20 are adapted to provide a mounting connection for a pair of central stationary members 24 and a pair of outboard movable members 26. . . . Each of the plurality of bracket members 20 is made of angled stainless steel having notched ends 22.

The specification goes on to state in Paragraph [0019]:

In comparison to prior art bending rings that often weigh in excess of 100 pounds and require two workers to handle, gravity bending ring 10 of the present invention has been found to weigh substantially less than the conventional 100 pounds and, more particularly, about 70 pounds. Additionally, it has been found that these rings can be easily managed by a single worker and, thus, improves efficiency in the manufacturing process. The lower heat capacity of the square shaped tubing further provides improvements in furnace efficiency since such heat is not wasted in heating the bending ring.

That is, as was discussed during the telephonic interview on January 11, 2008, the reduced mass of gravity bending ring 10 attributed to the elimination of unnecessary structure and material provides the advantages enumerated in Paragraph [0019] above in both improved handling (i.e. lighter weight more easily handled by an operator) and thermal cycling (i.e. lower thermal mass). From a careful review of the teachings of the present application including the drawings and written specification, one skilled in the art would appreciate and find support for a limitation wherein, at least in certain embodiments, the plurality of support brackets extend inwardly toward the other of said pair of longitudinally extending tubular members but do not contact them in order to avoid the unnecessary addition of weight, thermal mass, and complexity to the present invention.

Moreover, Applicant respectfully submits that the use of a negative limitation should not preclude patentability of the present invention. As specifically stated in MPEP § 2173.05(i):

The current view of the courts is that there is nothing inherently ambiguous or uncertain about a negative limitation. So long as the boundaries of the patent protection sought are set forth definitely, albeit negatively, the claim complies with the requirements of 35 U.S.C. 112, second paragraph.

...
A claim which recited the limitation "said homopolymer being free from the proteins, soaps, resins, and sugars present in natural Hevea rubber" in order to exclude the characteristics of the prior art product, was considered definite because each recited limitation was definite. *In re Wakefield*, 422 F.2d 897, 899, 904, 164 USPQ 636, 638, 641 (CCPA 1970). In addition, the court found that the negative limitation "incapable of forming a dye with said oxidized developing agent" was definite because the boundaries of the patent protection sought were clear. *In re Barr*, 444 F.2d 588, 170 USPQ 330 (CCPA 1971).

In the present case, the boundaries of the claim are clear, and the drawings and original specification provide sufficient and clear support. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the present rejection.

REJECTION UNDER 35 U.S.C. § 103

Claims 1 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Garbin (U.S. Pat. No. 3,265,489) in view of Reese (U.S. Pat. No. 4,375,978) and further in view of Calevro (U.S. Pat. No. 4,077,792). This rejection is respectfully traversed.

At the outset, Applicant wishes to note the apparent typographical error contained in the Final Office Action dated October 10, 2007. The Examiner states that

"Garbin teaches a bending ring for supporting a glass sheet during heating. The disclosed apparatus provides longitudinally (12) and transversely extending (14) members." The Examiner goes on to state that a "pair of stationary members (24) are fixedly coupled to the longitudinally extending members (14). . . ." There is an apparent contradiction in the use of element 14 of Garbin. It is assumed that the Examiner intended to recite the transversely extending member as element (12) and the longitudinally extending member as element (14). Otherwise, much of the Examiner's arguments do not appear possible give the physical connections described in Garbin.

In particular reference to the present rejection, Applicant respectfully submits that Claims 1 and 4 are not obvious in view of Garbin, Reese, and Calevro as the references fail to disclose all the claimed features. To establish a *prima facie* case of obviousness, the prior art reference(s) must teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Or, if the references are missing claimed features, there must be some apparent reason either in the references or the general knowledge in the art by which to modify the references to include the missing subject matter. See *Id.* and *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1740-41, 82 USPQ2d 1385, 1396 (2007). The apparent reason to combine or modify the references should be made explicit in order to facilitate review. *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. at 1740-41, 82 USPQ2d at 1396; and see *In re Kahn*, 441 F3d 977, 988 (Fed. Cir. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning to support the legal conclusion of obviousness."). In the present case, the Garbin, Reese, and Calevro references fail to disclose a number of claimed limitations and the Examiner has failed

to provide adequate recitation of where such limitations can be found either in the cited references or the general knowledge in the art.

Specifically, Applicant directs the Examiner's attention to the limitations of Claims 1 and 4 and the corresponding teachings of Garbin, in particular. Claims 1 and 4 each claims "a pair of central stationary members fixedly coupled to said pair of longitudinally extending tubular members via said plurality of support brackets such that said pair of central stationary members are positioned inboard of and offset from said generally rectangular assembly". The Examiner states that Garbin allegedly teaches a "pair of stationary members (24) . . . fixedly coupled to the longitudinally extending members (14) via the support brackets (16, 36). . . ." (Final Office Action, page 3). However, it should be appreciated that the center mold sections 24 of Garbin are supported by posts 18, which are separate and distinct from cross-piece 16 and hinge pins 36. (Garbin, Col. 4, lines 58-63). Therefore, it should be appreciated that Garbin, like the prior art discussed in the present application, requires additional members to support the center mold sections, which invariably add to the complexity and weight/thermal mass of the bending ring assembly—specifically, these are disadvantages that the present invention seeks to overcome.

Additionally, Applicant submits that Claims 1 and 4 each claims a plurality of support brackets "being separate from said pair of cross support tubular members". In response to this previous amendment, the Examiner indicated that "Garbin further teaches a plurality of support brackets (48) which are attached to a longitudinally extending member (14) . . . which extends inward towards but do (*sic*) not contact the opposite longitudinally extending member." (Final Office Action, page 6). As discussed

during the recent telephonic interview, Applicant respectfully submits that the Examiner has erred in reading stop member (48) against the plurality of support brackets claimed in Claims 1 and 4, specifically the following claim limitations in Claim 1:

a plurality of support brackets being separate from said pair of cross support tubular members and generally having a notched end defining an extending portion and a face portion, said extending portion positioned adjacent and in contact with a first side of one of said pair of longitudinally extending tubular members, said face portion abutting and in contact with a second side of said one of said pair of longitudinally extending tubular members; each of said plurality of support brackets extending inwardly toward but not contacting the other of said pair of longitudinally extending tubular members. . . ,

and the similar limitation in Claim 4:

a plurality of support brackets being separate from said pair of cross support tubular members and generally having an extending portion and a face portion, said extending portion positioned adjacent a first side of one of said pair of longitudinally extending tubular members, said face portion abutting a second side of said one of said pair of longitudinally extending tubular members; each of said plurality of support brackets having a longitudinal axis extending inwardly toward the other of said pair of longitudinally extending tubular members. . . .

Applicant submits that stop member (48) of Garbin is not a "support bracket" as claimed in the present application and, in fact, stop member (48) functions merely as a device used to prevent over rotation of the end mold sections (40) and (42). Garbin states a "stop member 48, comprising a set screw 50 extending through an apertured plate 52, is disposed in the path of movement of the inner end portion 46 of each of the lever arms 38." (Garbin, Col. 5, lines 16-20). Still further, the stop member (48) of Garbin lacks the interconnection claimed between the plurality of support brackets of the

present application and the corresponding pair of central stationary members and pair of outboard movable members.

Moreover, Applicant respectfully submits that stop member 48 fails to teach or suggest the claimed physical connection properties of the support brackets to the pair of longitudinally extending members. That is, Applicant submits that Garbin fails to teach or suggest an "extending portion positioned adjacent a first side of one of said pair of longitudinally extending tubular members" or a "face portion abutting a second side of said one of said pair of longitudinally extending tubular members" as claimed. It is important to note that the extending portion and the facing portion, as claimed, are referenced relative to differing sides of a single longitudinally extending tubular member.

For these reasons, Applicant respectfully submits that the present rejection fails to teach or suggest many of the claimed limitations. Additionally, Applicant submits that on various issues, the Examiner has misinterpreted the teachings of the Garbin reference and its application to the present claims. Still further, Applicant submits that numerous claim limitations have not been specifically addressed by the cited prior art. Therefore, Applicant respectfully submits that Claims 1 and 4 are not obvious in view of Garbin, Reese, and Calevro as the references fail to disclose all the claimed features. Reconsideration and withdrawal of the present rejection are respectfully requested.

Claims 2 and 5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Garbin (U.S. Pat. No. 3,265,489) and Reese (U.S. Pat. No. 4,375,978) in view of DeAngelis (U.S. Pat. No. 4,119,428). This rejection is respectfully traversed.

At the outset, Applicant respectfully directs the Examiner's attention to the arguments set forth above in connection with independent Claims 1 and 4, as Claims 2 and 5 depend therefrom, respectively. Moreover, Applicant submits that DeAngelis fails to overcome the deficiencies of Garbin and Reese. Reconsideration and withdrawal of the present rejection are respectfully requested.

Claims 3 and 6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Garbin (U.S. Pat. No. 3,265,489) and Reese (U.S. Pat. No. 4,375,978) in view of Black (U.S. Pat. No. 3,248,201). This rejection is respectfully traversed.

At the outset, Applicant respectfully directs the Examiner's attention to the arguments set forth above in connection with independent Claims 1 and 4, as Claims 3 and 6 depend therefrom, respectively. Moreover, Applicant submits that Black fails to overcome the deficiencies of Garbin and Reese. Reconsideration and withdrawal of the present rejection are respectfully requested.


CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner

believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: February 4, 2008

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